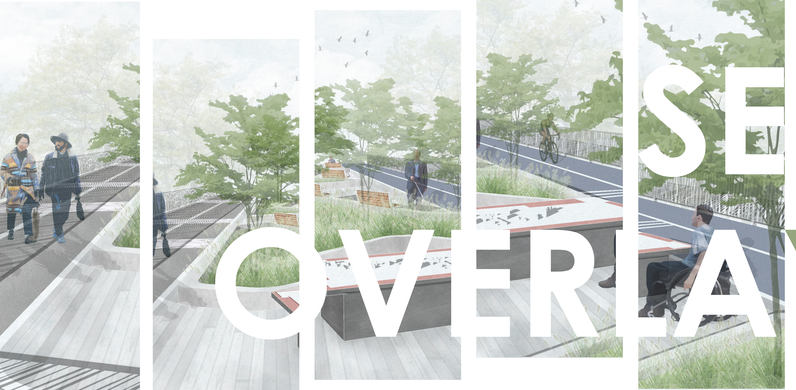
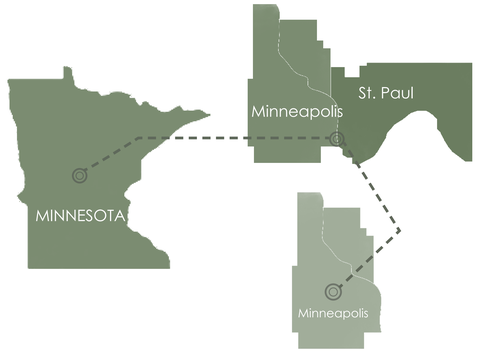


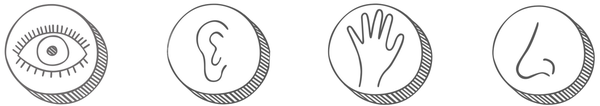
SENSORY OVERLAY

Promoting Inclusivity And Accessibility for Americans With Disabilities Along The Midtown Greenway In Uptown Minneapolis



Universal Design:

Urban Environments can often become dangerous, uncomfortable and hostile environments for people with disabilities. ADA rules and regulations force architects and designers to design for people with disabilities yet those with sensory disabilities are left behind. This project focuses on people with sensory and mobility-related disabilities and how they interact with nature and the built environment. The project focuses on the four senses that make us more aware and are the senses that people with a sensory disability rely on for navigation. By using those senses a design that focuses on the objectives of accessibility, safety, and inclusivity has been created. It allows people with both mobility and sensory disabilities to experience nature from a new perspective.



WALK SCORE ANALYSIS

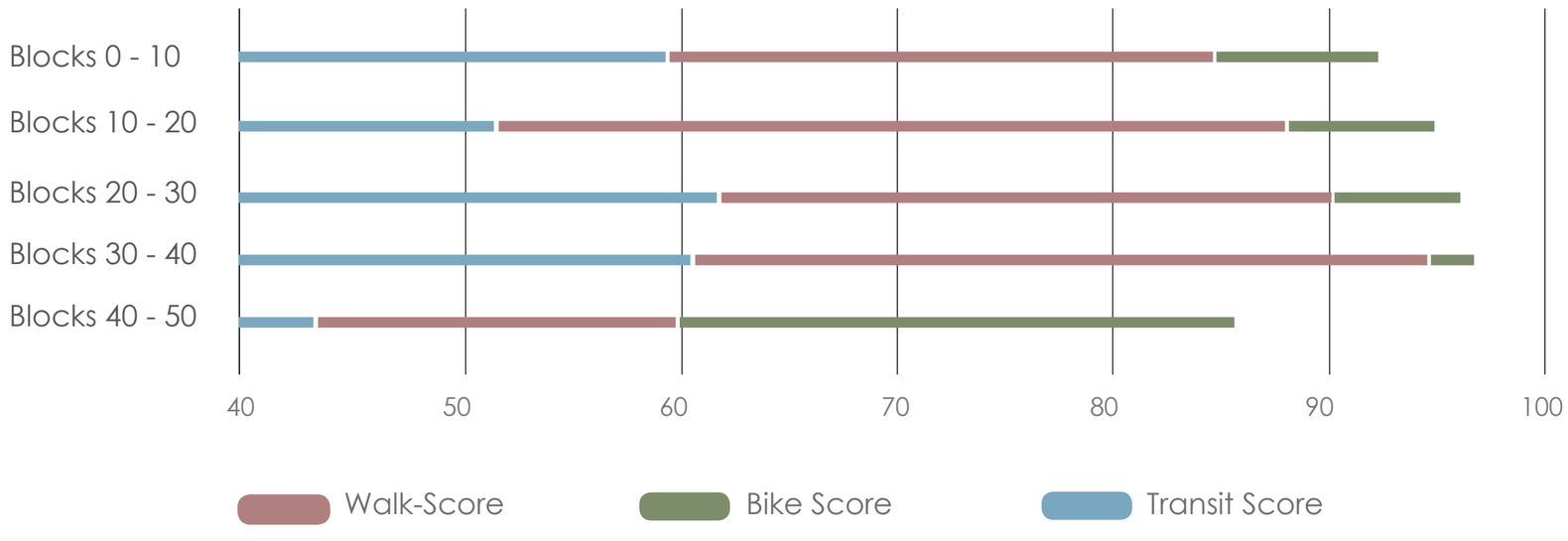
1 WALK SCORE METHODOLOGY:

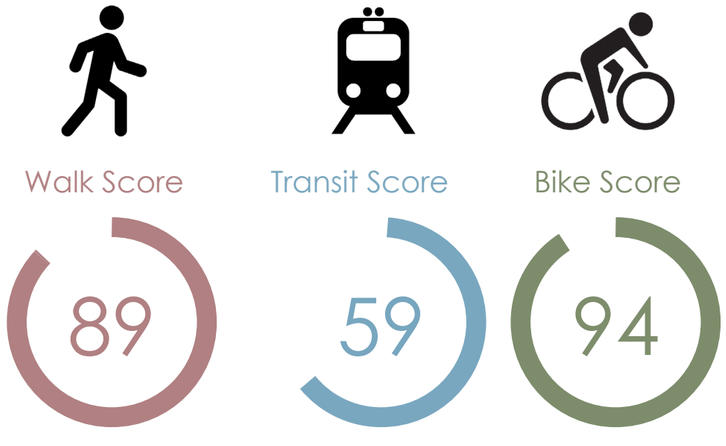
The walk Score Methodology measures the walk ability of any address that you chose. Walk Score will also score public transit access and bike access. Walk Score uses a patented system analyzing hundreds of walking routes to nearby businesses, recreational spaces and amenities for any address. Every point is awarded based on the distance to amenities in each category. Any amenities or recreational spaces that are within a five minute walk are given the highest score. More distant amenities get lower scores as well as those that are longer than a 30 minute walk are given no points at all.

Walk Score also has the ability to measure pedestrian friendly locations, this is done by analyzing population density and road metrics such as block length and intersection density.

2 RESULTS:

The Walk Score research was done by carefully selecting addresses along the Midtown Greenway that would help determine the overall walkability of the site. Each block was assigned a walk score, transit score, and a bike score. These scores helped determined the walkability of specific areas within the greenway. Most of the greenway scored quite well with the average score of 84, and the lowest score being 45 around the lake access areas that have no connections to amenities or other recreational spaces. All the selected addresses along the greenway received a good bike score as this area is often known as a biker's paradise. The greenway's average bike score was 94 with the lowest score being 75. However, the transit score was the only section that received the least scores as there is no accessible transport along the Midtown Greenway. There are only two main transit points through the greenway, that are located at both ends. The highest score received for transit was 79 with the lowest being 40. The average transit score was 62.





THE URBAN STRUCTURE

Access to water allows those living nearby to connect and experience nature in many different ways.

Cedar Lake

Lake of The Isles

Lake Calhoun

The greenway has the ability to connect neighborhoods and communities to important landmarks, like the Minneapolis Institute of Art.

The Midtown Greenway Connects to the Metro Lightrail through the blue and the green line.

The blue line is located at the beginning of the Greenway while the green line is located at the very end.

The Greenway connects to many different amenities and businesses throughout. With many business clusters strategically placed.

The Greenway currently accommodates bikers the most. It is not as pedestrian friendly or feels safe during night time.

The Midtown Greenway provides access to different cultural and historic buildings. The Somali Museum of Minnesota being one of them.

The Area is well known for it's access to different amenities and recreational spaces. These green spaces like the powderhorn park define the neighborhood and give it character.

Importance of Connectivity:

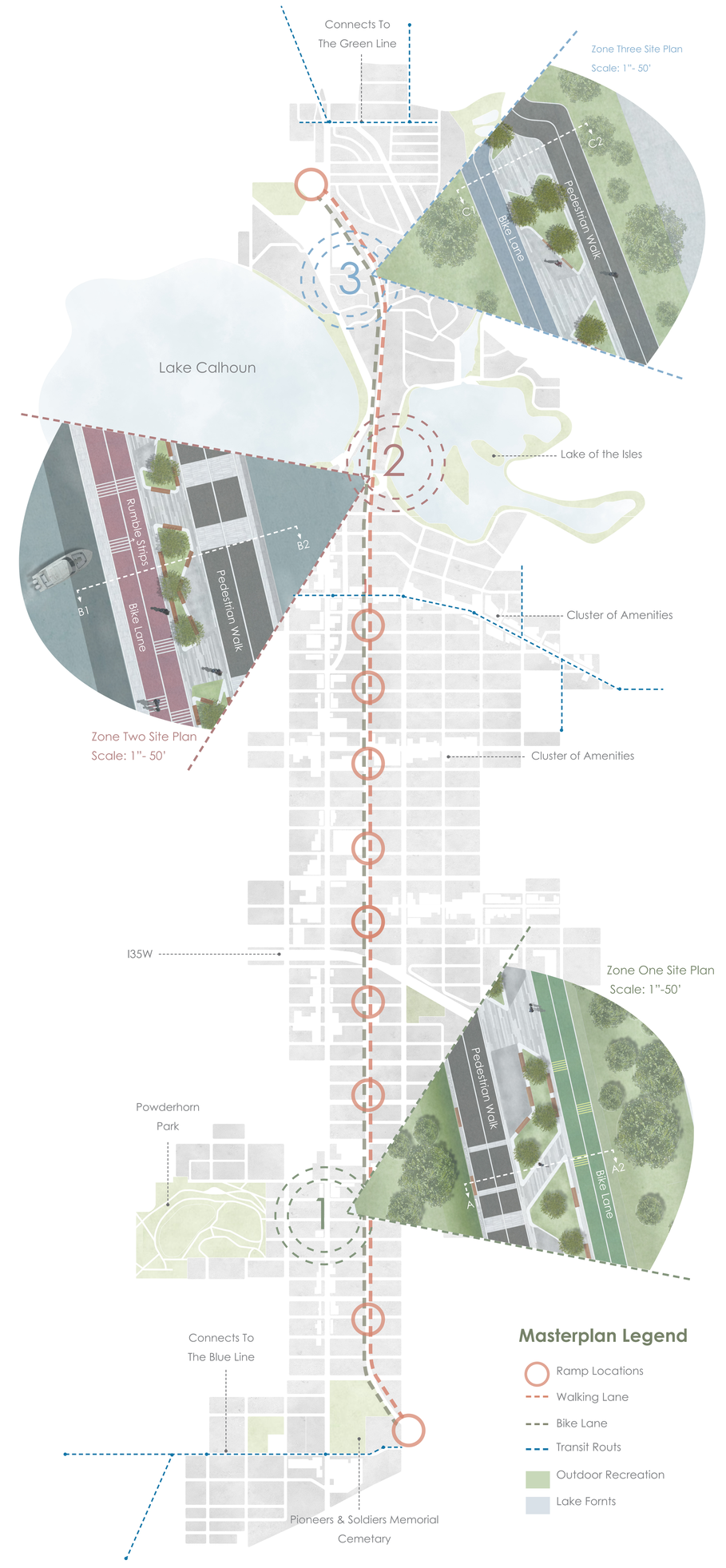
Connectivity plays an extremely important role in accessibility and walkable cities. Connectivity not only allows people to interact with nature and culture it also has the ability to show spatial patterns of neighborhoods and people living in them. Connectivity also plays a big role in culturel development and linked progression. Connectivity is often linked accessibility, social patterns, convenience, and walkability. Connectivity is a driving force that will connect people, landmarks and cultures together. Such analysis allows us to understand behavioral patterns of Midtown Greenway users and why pedestrians tend to rarely use it.

Connectivity Legend

- Vehicular circulation
- Pedestrian Routes to Amenities
- Biking Route

MASTER PLAN

Scale: 1" - 500'



Masterplan Legend

- Ramp Locations
- Walking Lane
- Bike Lane
- Transit Routs
- Outdoor Recreation
- Lake Fornts

ZONE ONE: URBAN

Zone one is located in the urban part of the Midtown Greenway. The area is defined by its inground appeal. The design strategy for this area was to include wayfinding and recreational spaces for people with disabilities and to improve accessibility by providing more ramps Throughout the greenway.

ZONE TWO: LAKE ACCESS

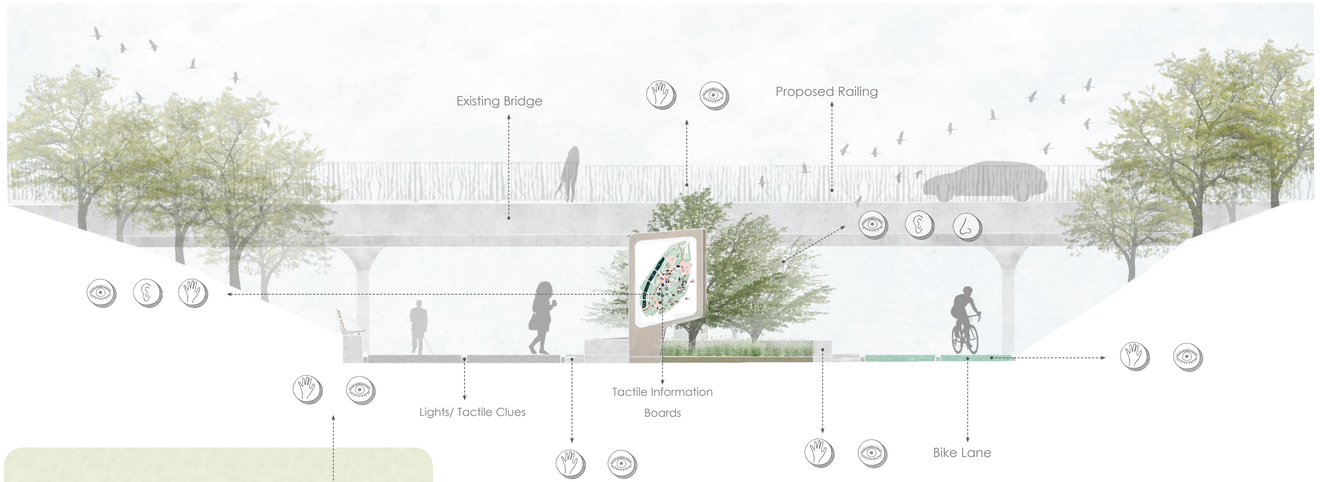
Zone two is located in a more isolated part of the greenway that also provides a lookout towards t the Lake of the Isles as well as Lake Calhoun. The goal was to provide a safe and more welcoming atmosphere as well as allow people to engage with water through different senses by providing viewing platforms.

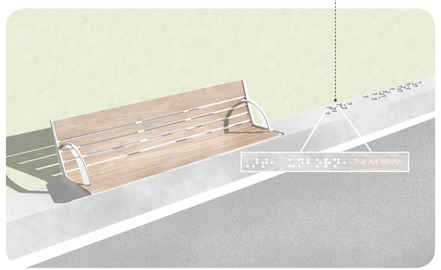
ZONE THREE: SUBURBAN

Zone three is mainly characterized by suburban housing clusters thus allowing those living in the suburbs a safe and easy commute to downtown Minneapolis. The strategy in zone three was to allow visitors to engage with nearby neighborhoods as well as create a more welcoming experience for all.

ZONE ONE WALKTHROUGH

Underground Greenway Corridor





Barille Installation Design Detail

This design detail showcases an art installation that will display different poetry verses on the concrete retaining wall. The poetry selected our written by poets with disabilities and about disabilities. This installation will allow people to not only play with the giant braille font but to also learn from it.

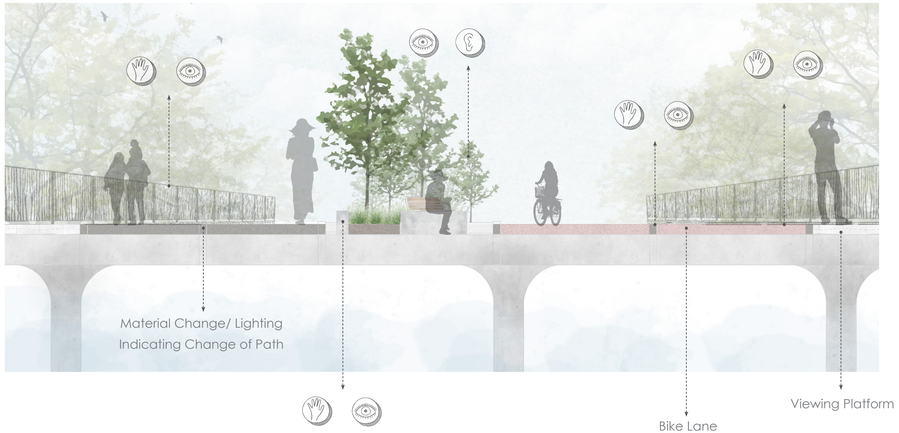
Sensory Experiences Underground

Zone One is characterized by the sunken space it is located within, due to the topography that surrounds the greenway. The sunken spaces are particularly characterized by the overhead moving cars thus making it distracting for people with disabilities to focus on nature surrounding them. In order to improve the intimacy of this space, a variety of trees and shrubs have been planted that would allow disabled and able bodied visitors to play and explore nature in a new and interesting way.

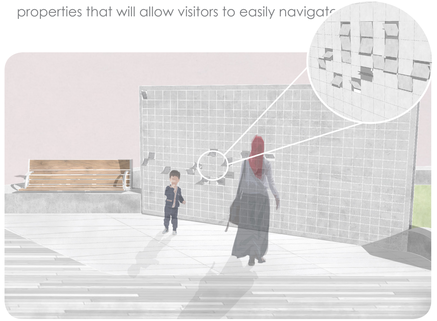
This space will include spaces for information boards, 3d maps, seating, installations and more. The design of the paths is simple with pedestrian paths being on one side and bike lanes being on the other. This way there will be fewer interactions with the bikers making it safer for people with sensory disabilities. Rumble strips have also been installed in order to alert pedestrian users of a coming bicyclist.

ZONE TWO WALKTHROUGH

Lake Front Corridor



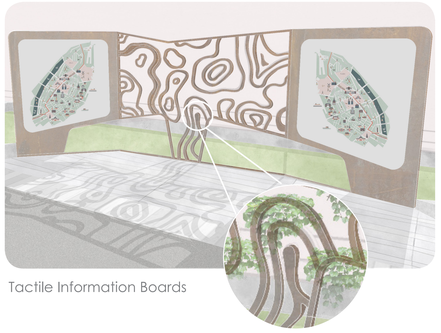
The two design details on the bottom show the different interactive ways people with sensory disabilities would be able to enjoy the site. The installation below is a wall that would display different kinds of materials found through the site where people could touch these materials and get to know their surroundings better. The information boards showcased below also have tactile wayfinding properties that will allow visitors to easily navigate



Tactile Installation Design Detail

A Sensory Experience Over the Lake Front

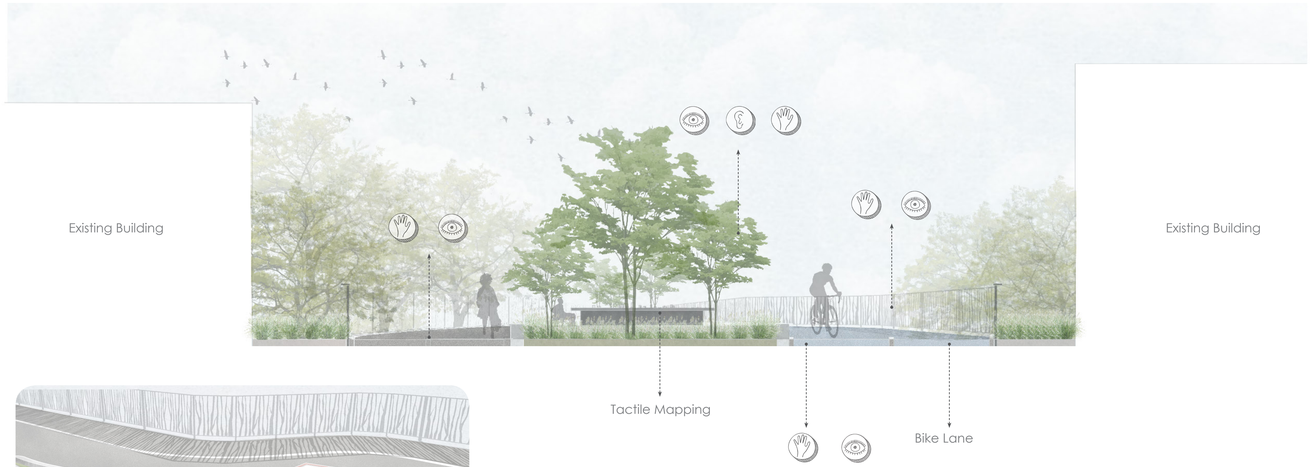
Zone two's location is one of the most interesting locations through the greenway as it goes over and overlooks Lake of the Isles, thus creating a wonderful and peaceful environment for the users. Because of this sound experience, this area is designed to make users engage more with sounds rather than tactile objects. This is done through vegetation and access to water. Originally this space is a dense area where everything is completely isolated. By allowing the space users will be able to identify sound clues that will help them further interact with nature. Zone two mainly relies on lighting and sound. This will create an interesting yet not too overwhelming experience for those with sensory dissabilities. Tactile installations will still be diisplayed through the site however, they will be accomponied by different types of vegetation that will make it even more interactive for visitors. These spaces are meant to be for both dissabled and able bodied individuals.

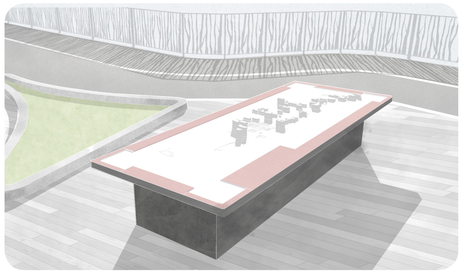


Tactile Information Boards

ZONE TWO WALKTHROUGH

A Suburban Corridor





Tactile Mapping

This design detail shows a tactile map of the Midtown Greenway, that would allow users to interact with it through touch and sound in order to use it as a wayfinding technique. These kinds of maps are helpful for those with sensory disabilities as well as make it a fun environment for children.

Suburban Sensory Experiences

Zone three is located in a primarily suburban region thus this design focuses on blending in with the surrounding by using vegetation, while at the same time thinking about how vegetation always stimulates our senses, Weather it is from the sound of leaves or if it's the smell. The mix of existing vegetation and proposed blend well together in order to create an intimate atmosphere between the user and the nature surrounding them.

This space is meant to be more of a quiet one that allows users to isolate themselves from a busy day to day lives. However, this route will still be a safe, easy and wonderful way of commute. The railing is designed to reflect a beautiful pattern during the day with the help of sunlight, and with the use of LED bulbs at night. This will then prevent glare from lightbulbs and will not distract those with visual impairments. The tactile model of the site serves as a wonderful wayfinding technique as well.